



Coin Changer
CC6000
Installation Guide



International Currency Technologies

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1. Product Introduction

1-1. Product Usage

This manual applies to the installation of the MDB or the VCCS Coin Changer of the ICT Coin Changer (CC6000). This coin inserter is suitable for kiosks or automatic vending machines. Specific parameters such as coin diameter, thickness, material, etc., can be configured for coin identification. This coin inserter can identify currencies for the following countries and regions: Taiwan, Singapore, Malaysia, Thailand, China, Russia, and Euro (under development: Mexico, Indonesia, etc.).

1-2. Product Features

The coin changer can be installed into automatic vending machines using the three fixing screws in the automatic vending machines. The coin changer has the following features:

- Damaged modular tubes can be replaced for improved product usability.
- The coins can be held at the temporary escrow area. If a consumer cancels the transaction, the original coins would be returned to prevent money laundering. The system supports coins with two different sizes and thicknesses.
- The LCD display can promptly shows the status of the coin changer.
- Machines on the market can be updated with a portable software updating devices.
- Each module (such as the identification module) can be replaced individually to save on the costs of buying a new machine and reduce maintenance time.
- Unsupported coins can be canceled.
- Learning function: The customer can press the learning function button to readjust the currency rates (must execute based on standards provided by the ICT).
- Mechanical anti-fishing mechanism.
- The coin tubes can replenish coins automatically without a standby coin tube. This product uses the six tube cycling system to reduce the number of manual coin replacement instances required.

1-3. Product Specifications

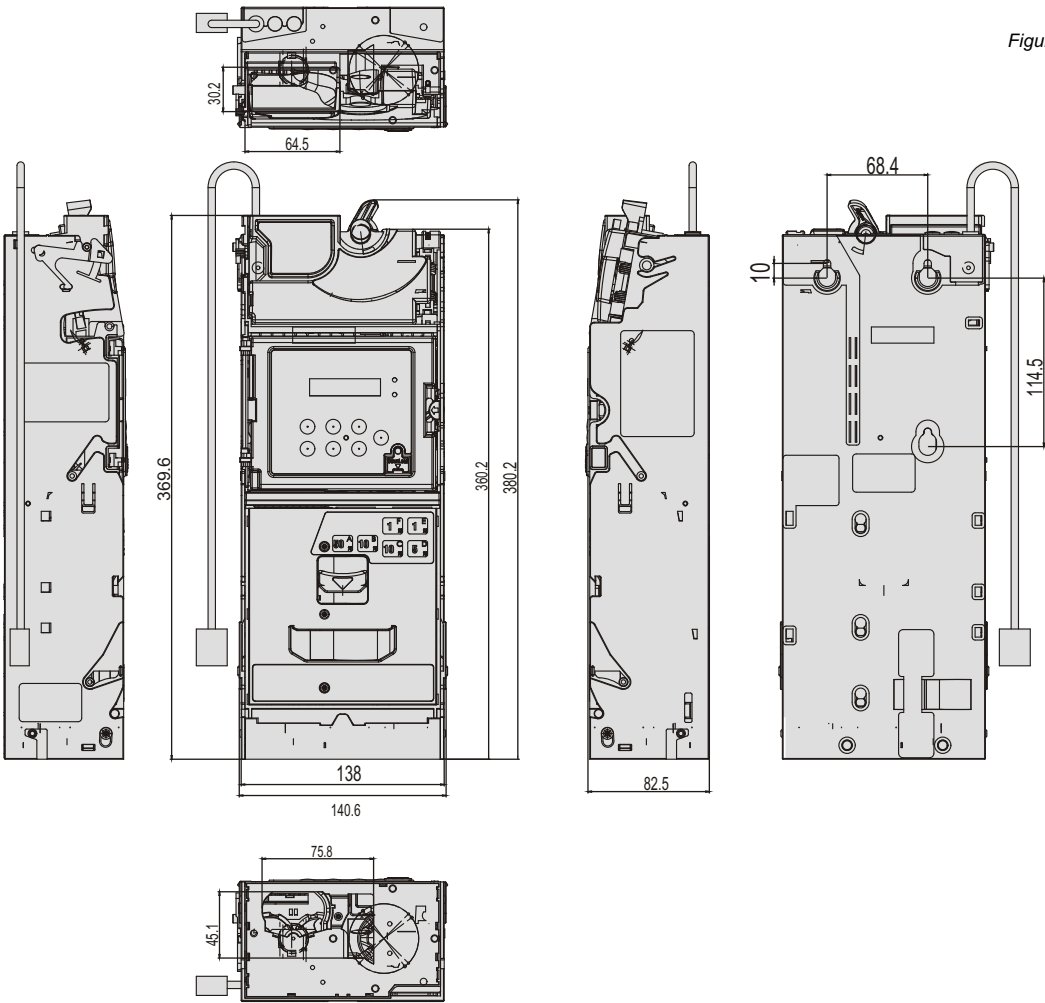
Supply Voltage :	MDB 20V DC ~ 45V DC VCCS : 24V DC \pm 10%
Power Consumption:	Standby mode \leq 3.6W Coin acceptance \leq 15.6W Coin payout \leq 15.6W / Motor (36W max. when Power is turned on instantly) Battery operation : Sleep mode \leq 10uA Standby mode \leq 3.6W(wake-up mode)
Temperature Tange:	-15°C ~ +60°C
Storage Temperature:	-30°C ~ +70°C
Temperaturr Change:	Max. 0.2°C / minute
Relative Humidity:	Up to 85%
Machine Interface:	MDB or VCCS
Coins Acceptance:	Coin diameter 16mm ~ 28mm Coin Thickness 1.2mm ~ 2.6mm
Coin payout:	Max. 6 coin types from a tube cassette
Coin diameter and thickness depend on tube cassette in use:	

	TUBE					
Coin Diameter mm	A	B	C	D	E	F
26.0 - 28.5	v , *	v , *	-	-	-	-
24.0 - 26.0	v , *	v , *	v	v	v	v
22.0 - 24.0	v , *	v	v	v	v	v
20.0 - 22.0	v	v	v	v	v	v
18.0 - 20.0	v	v	v	v	v	v
16.0 - 18.0	v	v	v	v	v	v
(* Supports Escrow Function)						

Acceptable Speed:	Approx. 1 pcs. / second
Device dimensions:	138(W) x 81(D) x 369.6(H) mm
Mounting position:	Vertical, max. deviation: \pm 3°
Mark of conformity:	CE

2. Exterior Dimensions

2-1. Product Dimensions



Unit : mm

2-2. Installation Instructions (added module marks)

1. Prior to installation, remove the coin inserter from the carton and inspect for damages.
2. Turn off the power of the automatic vending machine.
3. Unhook the green hook at the left side of the coin inserter and tilt the coin identification and separation module.

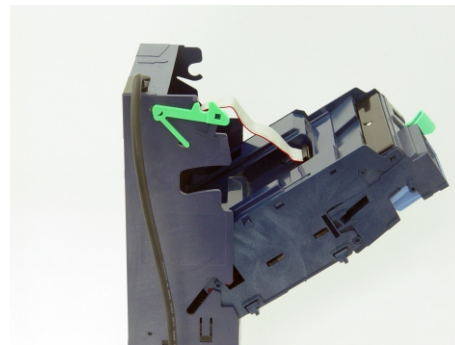


Figure.2

4. After the coin identification and separation modules are opened, you can see 3 hanging holes. Affix the coin inserter through the 3 hanging holes with screws. It would be preferable to secure all three screws.

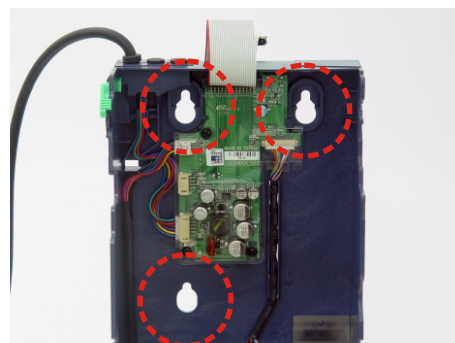


Figure.3

5. Tighten the screws and install the coin identification and separation module.
6. Press the green coin tube fixing latch to pull out the money tube apparatus at a upwardly slanted angle.



Figure.4

7. Fill the coins and ensure that the coins enter the corresponding tubes and are flatly placed in the tube. Then install the coin tubes into the Coin Changer.
8. You can also choose not to open the coin tube module and insert the coins through the tube openings to automatically refill the coins. (Refer to LCM setting)

《Installing the Connection》

After the coin inserter has been installed, check and ensure that there is a 3 to 5 mm gap between the coin return button of the coin inserter and the coin return lever of the automatic vending machine. Check to ensure that when the coin return lever of the automatic vending machine has been pulled and released, the flight board of the coin identification module can open and close freely. Check to ensure that the coin insertion, coin return box, and coin storage box channels of the automatic vending machine line up with the corresponding channels of the coin inserter. If they do not line up, please adjust accordingly. Insert a coin to inspect whether the coin can pass through the passage channel successfully. Please ensure that the opening of the automatic vending machine do not press or push against the coin identification module.

《Wire Connections》 :

Sometimes numerous wires will be connected to the CC6000 for interface communication or statistical information collection. Please ensure that these wires are connected correctly. After the connections are confirmed, neatly bundle the unused wires. Please ensure that there are no interferences between the connected wires, the coin insert and return device, and the door of the automatic vending machine. After the inspections are complete, please turn on the power of the automatic vending machine.

《Initialization》 : (Initial Power Up after Removal from the Box)

Inspect the amount of coins in each coin tube after power up. The coin inserter would not work correctly without enough coins in the coin tubes. The user must ensure that the amount of coins in each coin tube exceeds the sticker mark on the coin tubes. After the user has filled the coins, the coin inserter would detect the adequacy of coin quantity within a few seconds. The user should discharge at least 1 coin from each coin tube to ensure that the discharged coins fall into the coin return box of the vending machine.

Note: At this point, the coin inserter can operate properly.

2-3. Appearance Description

《Identification》 : As shown in figure below

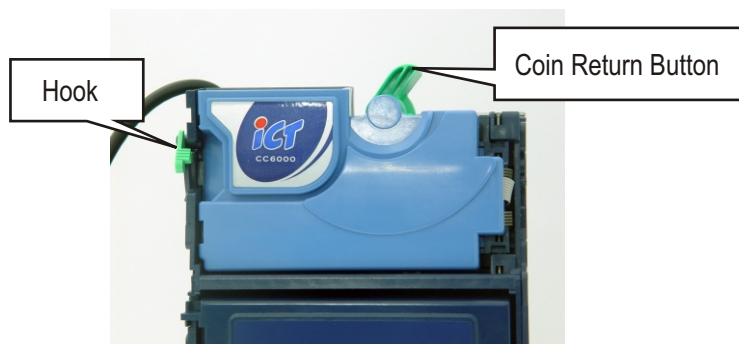


Figure.5

《Coin Return Button》 : After a coin is inserted, press the coin return button to return the coin

《LCM Panel》 : As shown in figure below

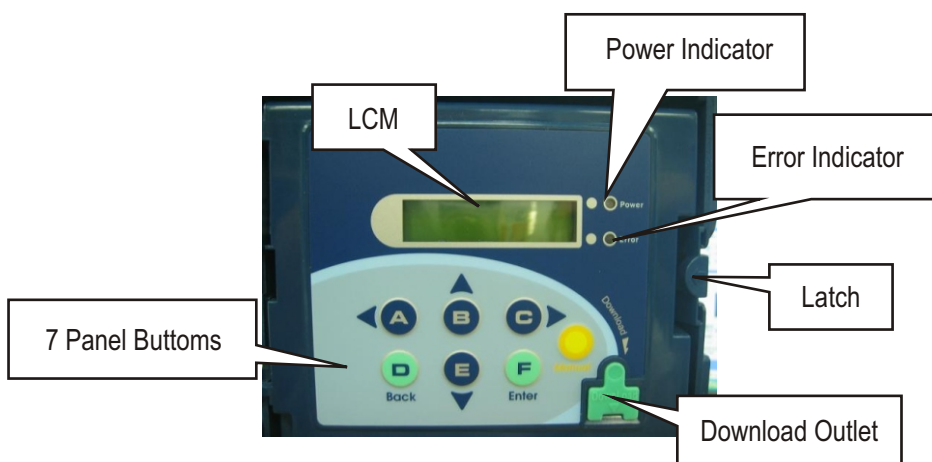


Figure.6

The latch used to open the LCM panel, as shown in figure below



Figure.7

《Coin Tubes》 : Press the latch as shown to withdrawn coins

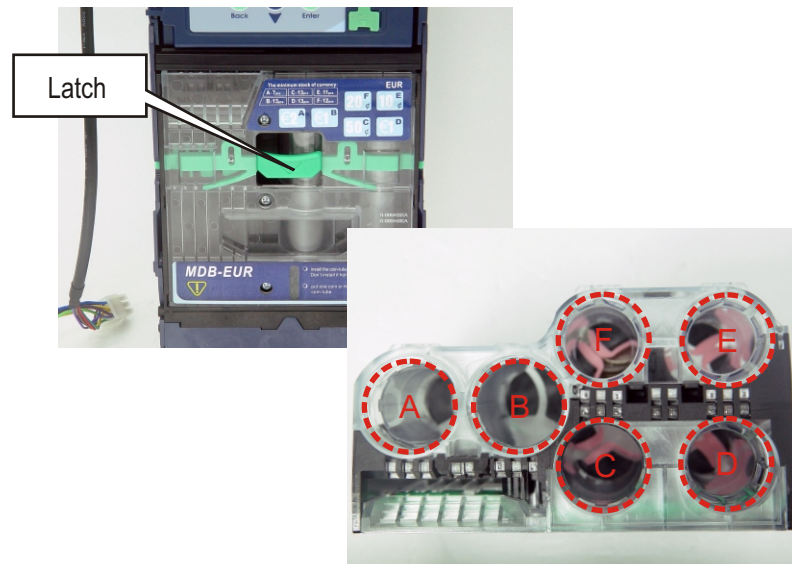


Figure.8

《DIP Description》 :

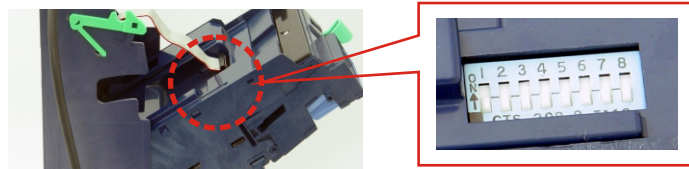


Figure.9

DIP SW1: Set to OFF for high acceptance (1st Currency)
Set to ON for high anti-counterfeiting (1st Currency)

DIP SW2: Set to OFF for high acceptance (2nd Currency)
Set to ON for high anti-counterfeiting (2nd Currency)

DIP SW3: Set to OFF for high acceptance (3rd Currency)
Set to ON for high anti-counterfeiting (3rd Currency)

DIP SW4: Set to OFF for high acceptance (4th Currency)
Set to ON for high anti-counterfeiting (4th Currency)

DIP SW5: Preset to OFF

DIP SW6: Preset to OFF

DIP SW7: Preset to OFF

DIP SW8: Set to ON to turn off the sleep mode
Set to OFF to turn on the sleep mode

Note: Only the Power Saving-MDB product has the DIP SW8 function

3. LCM Settings

3-1. Button Functions



Figure.10

Manual Button:

Normal Mode: Press 1 to enter the LCM setting page. Press the Coin Return and the Manual buttons together for 3 seconds to set the minimum coin number for all of the coin tubes. If the minimum coin number is not set by the user, the default minimum coin number would be used.

LCM Mode: Press 1 to return to the previous page.

“A” Button:

Normal Mode: Press once and the “A” tube would discharge 1 coin. Press the Coin Return and the “A” buttons together for 3 seconds and the “A” tube would discharge coins until it hit the low level and become emptied.

LCM Mode: Press “A” for page switching.

“B” Button:

Normal Mode: Press once and the “B” tube would discharge 1 coin. Press the Coin Return and the “B” buttons together for 3 seconds and the “B” tube would discharge coins until it hit the low level and become emptied.

LCM Mode: Press “B” to set the accumulation value.

“C” Button:

Normal Mode: Press once and the “C” tube would discharge 1 coin. Press Coin Return and the “C” buttons together for 3 seconds and the “C” tube would discharge coins until it hit the low level and become emptied.

LCM Mode: Press “C” to switch pages or set parameters (add).

“D” Button:

Normal Mode: Press once and the “D” tube would discharge 1 coin. Press the Coin Return and the “D” buttons together for 3 seconds and the “D” tube would discharge coins until it hit the low level and become emptied.

“E” Button:

Normal Mode: Press once and the “E” tube would discharge 1 coin. Press the Coin Return and the “E” buttons together for 3 seconds and the “E” tube would discharge coins until it hit the low level and become emptied.

LCM Mode: Press “E” to switch pages or set parameters (subtract).

“F” Button:

Normal Mode: Press once and the “E” tube would discharge 1 coin. Press the Coin Return and the “E” buttons together for 3 seconds and the “E” tube would discharge coins until it hit the low level and become emptied.

LCM Mode: Press “F” to confirm.

3-2. Button Functions for the LCM Function Setting Mode

Manual Button: Press the Manual button once to enter function settings, and press again to enter the standby status.

“A” Button = Move left

“B” Button = Move up

“C” Button = Move right

“D” Button = no function

“E” Button = Move down

“F” Button = Enter

3-3. LCM Function Operation Instructions.

«Coin Refill Function»

Code: 100

Definition: Enter coin filling mode to fill up to Low level of each coin value.

Steps:

1. Press Manual button to enter configuration mode.

2. Press A/C button and scroll to EZ code 100.

Refill Coin
100

3. Press Enter to enter the coin filling mode.

Pls Refill Coin

4. Begin to insert coins to coin changer.

(The LCM display will show how the coin to store into which tube, and it will display “Reached!” once that specific coin value has reached its Low level setting.)

Pls Refill Coin
10-TubeB: 6

5. Finish! Press Manual button to exit.

Caution: Please empty the coin tubes before refill, do not repeatedly enter the refill mode while refilling the coins.

Pls Refill Coin
10 Reached!

«Check the Total Coin “PayIn” and “PayOut” Value Differences»

Code: 101

Definition: Display Current Bookkeeping data.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 101.

Total In/Out	101
--------------	-----

3. Press Enter to the total amount display.

PayIn	:	\$0
PayOut	:	\$0

4. Press B/E bottom to display Pay in amount, Pay out amount, and difference.
(IN>OUT display “+”, OUT>IN display “-”)

Difference:	+
\$0	

5. Press Manual button to exit.
6. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode.

«Clear all PayIn and PayOut Records»

Code: 102

Definition: Reset bookkeeping data.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 102.

Reset Records	102
---------------	-----

3. Press Enter to reset the memory database.

Check Current Are You Sure?

4. The changer will display message once data has been erased successfully, and go back to main configuration screen.

Data has been erased

5. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode. PayIn/PayOut record deletion requires additional confirmation (refer to 113)

«Accept or Reject the Coin Denomination Switch»

Code: 103

Definition: On/off switch for different Coin Value.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 103.

Accept/Reject
Coin Switch 103

3. Press Enter to enter coin value select mode.

TWD \$1 : Accept
Enter to Change

4. Press B/E button to scroll up/down to select the coin value desired to make a change.
5. Press Enter to change its current setting. (On → Off/Off → On)
6. Press Manual button to exit.
7. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode.

«Set the Coin Tube Open Function»

Code: 104

Definition: On/off switch for Tube A, B, C, D, E, and F.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 104.

Tube Open/Close
Switch 104

3. Press Enter to enter tube select mode.

TUBE A ON
Enter to Change

4. Press B/E button to scroll up/down to select tube desired to make a change.
5. Press Enter to change its current setting. (On → Off/Off → On)
6. Press Manual button to exit.
7. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode.

«Set the Bill Acceptance Count for the BA» Special Function

Code: 106

Definition: Configure number of bills accepted per transaction.

(Only work on ICT Bill Acceptor connect to Coin Changer)

Note: This is a special function. The Coin Changer must be equipped with the ICT Bill Acceptor for this function to work.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 106.

Bill(s) per Transaction 106

3. Press Enter to number configuration mode.

Bill	Counts
8	PCS

4. Press B/E button to scroll up/down to change to number desired. (Default: 1)
The page below would appear after each save. If this page does not appear, that means the settings were not saved, and please reconfirm and press the "Enter" button to save the settings.

Saved

5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the Maximum Coin Stock Value for the Various Coin Denominations»

Code: 107

Definition: Configure High Level quantity of each coin value.

Factory Default: 250

Available Configure Range: 33~250

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 107.

Setup High Q'TY 107

3. Press Enter to enter coin value select mode.

TWD \$ 1 High Level : 250

4. Press B/E button to scroll up/down to select the coin value desired to make a change.
5. Press Enter to enter adjust mode.

Change Set Q'TY 250

6. Press B/E button to scroll up/down to adjust the number of High Level desired.

※The page below would appear after each save. If this page does not appear, that means the settings were not saved, and please reconfirm and press the "Enter" button to save the settings.

Saved

7. Press Manual button to save its configuration. The display will go back to coin value select mode after the configuration has been saved successfully.
8. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the Maximum Coin Refill Number and Remaining Coin Stock to Remain after Automatic Clearing»

Code: 108

Definition: Configure Low Level quantity of each coin value.

Note: The default factory value is based on the lowest coin stock standard for the various countries' currencies.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 108.

Setup	Low	Q'TY
		108

3. Press Enter to enter coin value select mode.

TWD	\$	1
Low	Level	: 14

4. Press B/E button to scroll up/down to select the coin value desired to change.
5. Press Enter to enter adjust mode.

Change	Set	Q'TY
		14

6. Press B/E button to scroll up/down to adjust the number of Low Level desired.

※The page below would appear after each save. If this page does not appear, that means the settings were not saved. Please reconfirm and press the "Enter" button to save the settings.

Saved

7. Press Manual button to save its configuration. The display will go back to coin value select mode after the configuration has been saved successfully.
8. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Check the Maximum and Minimum Coin Stock Level Settings»

Code: 109

Definition: Request current setting saved inside coin changer's memory.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 109.

Check Current
 Hi/Low Q'TY 109

3. Press Enter to enter information acquiring mode.

\$ 1 High : 250
 \$ 1 Low : 14

4. Press B/E button to scroll up/down to different coin value's Hi/Low tube level configuration.
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the Change Return Mode»

Code: 110

Definition: Return the original coin value / Return from the largest coin value.

Note: This function only works with the VCCS interface

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 110.

Change Mgmt.
 110

3. Press Enter to coin management setting mode.

Large Coins
 Enter to Change

4. Press Enter to change its current setting.
(Large Coins/Org. Coin Value)
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the Standby LCM Display Mode»

Code: 111

Definition: Change coin changer's display when idle.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 111.

Display Method 111

3. Press Enter to display method configuration mode.

Q'TY of Tube Enter to Change

4. Press Enter to change its display method.
(Q'TY of Tube/Total Coin Value)
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the BA Interface» Special Function

Code: 112

Definition: Select type of BA connected.

(Only work on ICT Bill Acceptor connect to Coin Changer)

Note: This is a special function. The Coin Changer must lap joint with the ICT Bill Acceptor for this function to work.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 112.

BA Type Setting 112

3. Press Enter to select BA Type.

BA: VCCS Enter to Change

4. Press Enter to change its setting. (VCCS/MDB)
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Restore the Default Factory Settings»

Code: 113

Definition: Restore factory default setting. Example: Hi/Low Level Qty of each tube...etc

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 113.

Default Setting
113

3. Press Enter to restore factory setting mode.

Default Setting
Are You Sure?

4. Press Enter to confirm go back to factory default.
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Set the Memory Function for the Coin Tubes»

Code: 114

Definition: ON → Coin changer will memorize its quantity of each tube.

OFF → Coin changer will not memorize its quantity of each tube. (Default)

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 114.

Tube Memory
114

3. Press Enter to configure tube memory mode.

Memory: Disable
Enter to Change

4. Press Enter to change its current setting. (On→Off/Off→On)
5. Press Manual button to exit.
6. Press the "A" or "C" button to select other function settings, and press the "Manual" button to return back to the standby mode.

«Clear All Memory for the Coin Tubes» Special Function

Code: 115

Definition: Clear Tube Memory in Display when Tube Memory ON

Note: This is a special function. The Coin Changer must be equipped with the memory mode for this function to work.

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 115.

Clear Tube Count
115

3. Press Enter to reset the memory database.

Clear Tube Count
Are You Sure?

4. The changer will display message once data has been erased successfully, and go back to main configuration screen.

Clear Tube Count
Clear Finish

5. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode.

«Coin Tube Configuration Mode» Special Function-Singapore Product Specific

Code: 116

Definition: Configure the tube coin assignment without change the firmware

Steps:

1. Press Manual button to enter configuration mode.
2. Press A/C button and scroll to EZ code 116.

Tube Setup
116

3. Press Enter to configure different tube assignment.
4. Press Enter to change between different selections.
(Please ask your sales for the tube assignment availability.)

TUBE: Mode1
Enter to Change

TUBE: Mode2
Enter to Change

5. Press Manual button to exit.
6. Press the “A” or “C” button to select other function settings, and press the “Manual” button to return back to the standby mode.

4. Wiring

4-1. Wire Diagram :

Interface	Used Voltage	Usage	Harness	Page
VCCS	24V DC	Power & *Data Comm.	WEL-RCC24-T	9
VCCS	24V DC	Power & *Data Comm.	WEL-RCC50-T	10
VCCS	24V DC	Power & *Data Comm.	WEL-RCC49-T	11
MDB	24V DC	Power & *Data Comm.	WEL-RCC23-T	12
MDB	24V DC	Power & *Data Comm.	WEL-RCC51-T	13
MDB	24V DC	Power & *Data Comm.	WEL-RCC47-T	14

Figure.11

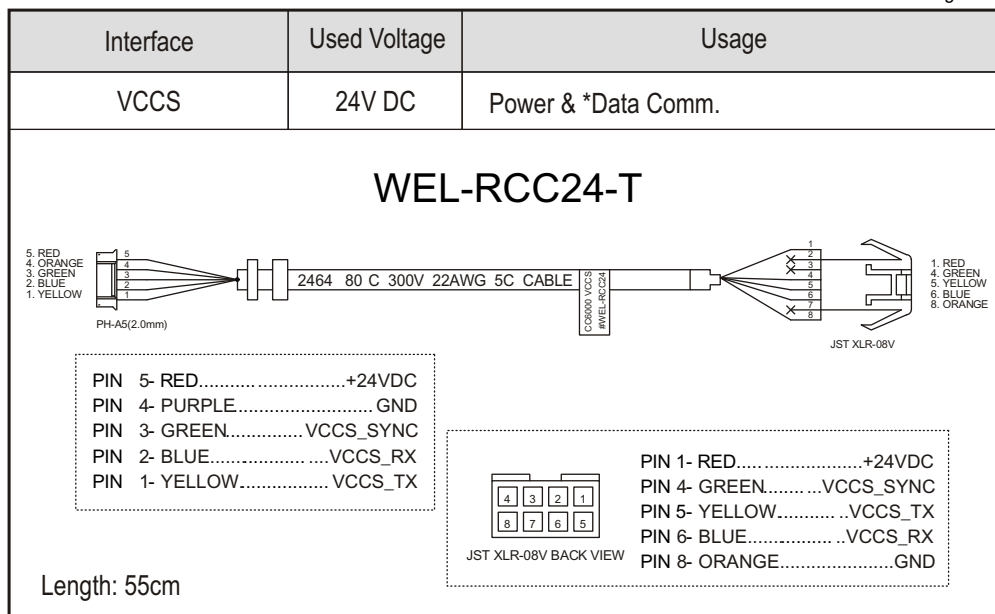


Figure.12

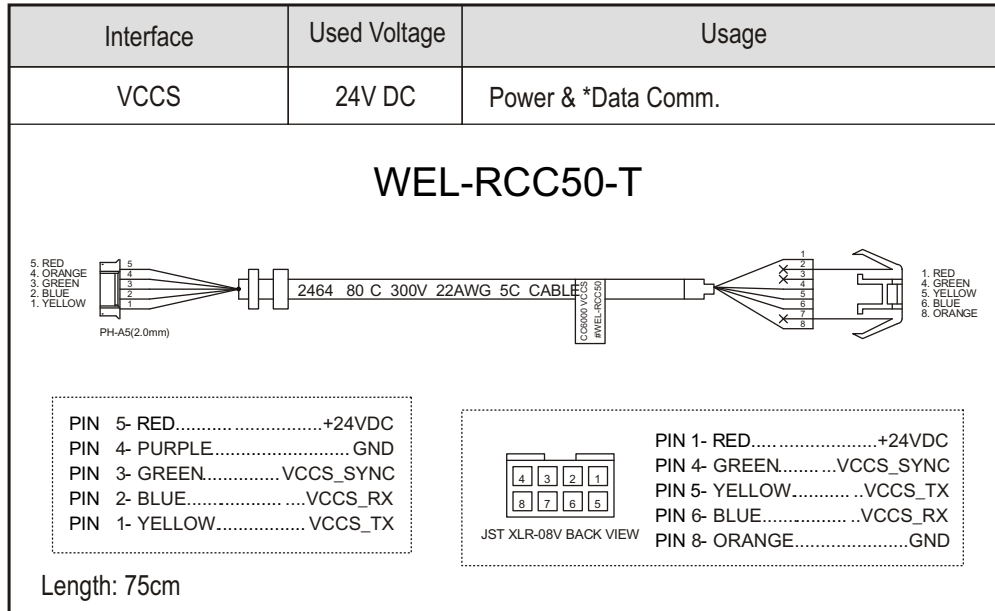


Figure.13

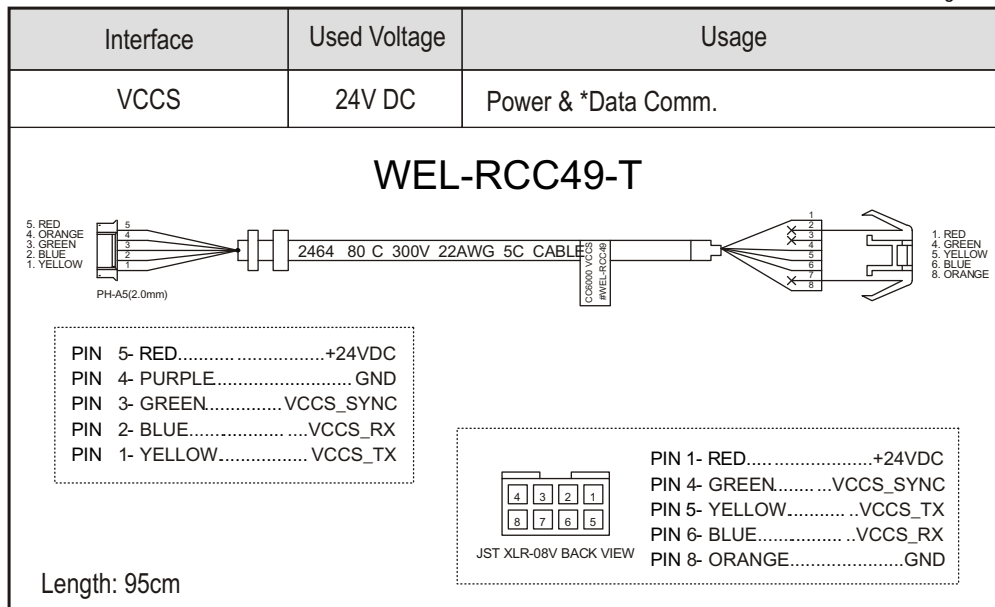


Figure.14

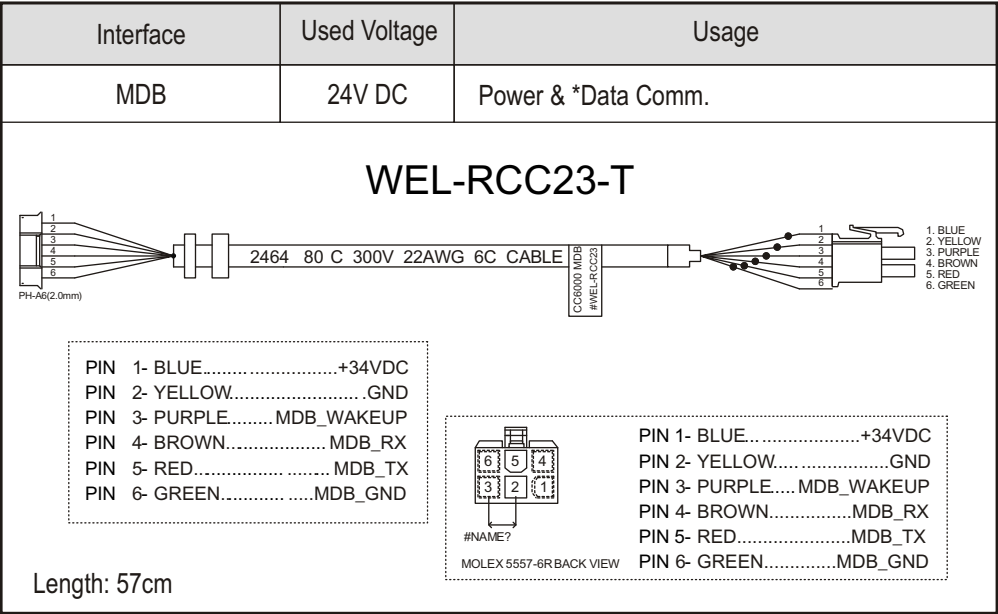


Figure.15

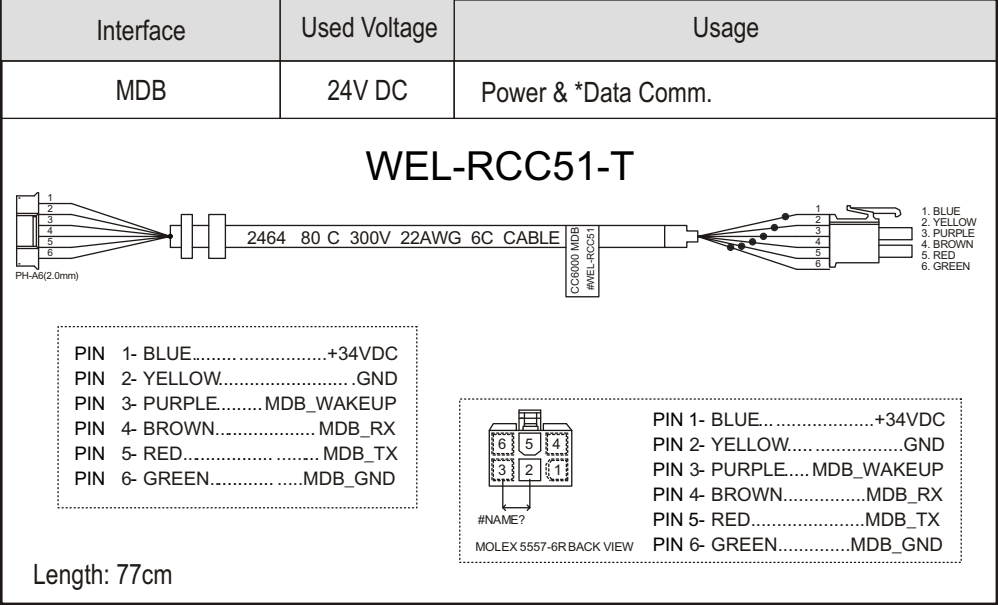


Figure.16

Interface	Used Voltage	Usage
MDB	24V DC	Power & *Data Comm.

WEL-RCC47-T

#NAME?

MOLEX 5557-6R BACK VIEW

PIN 1- BLUE.....	+34VDC
PIN 2- YELLOW.....	GND
PIN 3- PURPLE.....	MDB_WAKEUP
PIN 4- BROWN.....	MDB_RX
PIN 5- RED.....	MDB_TX
PIN 6- GREEN.....	MDB_GND

PIN 1- BLUE.....	+34VDC
PIN 2- YELLOW.....	GND
PIN 3- PURPLE.....	MDB_WAKEUP
PIN 4- BROWN.....	MDB_RX
PIN 5- RED.....	MDB_TX
PIN 6- GREEN.....	MDB_GND

Length: 97cm

Figure.17

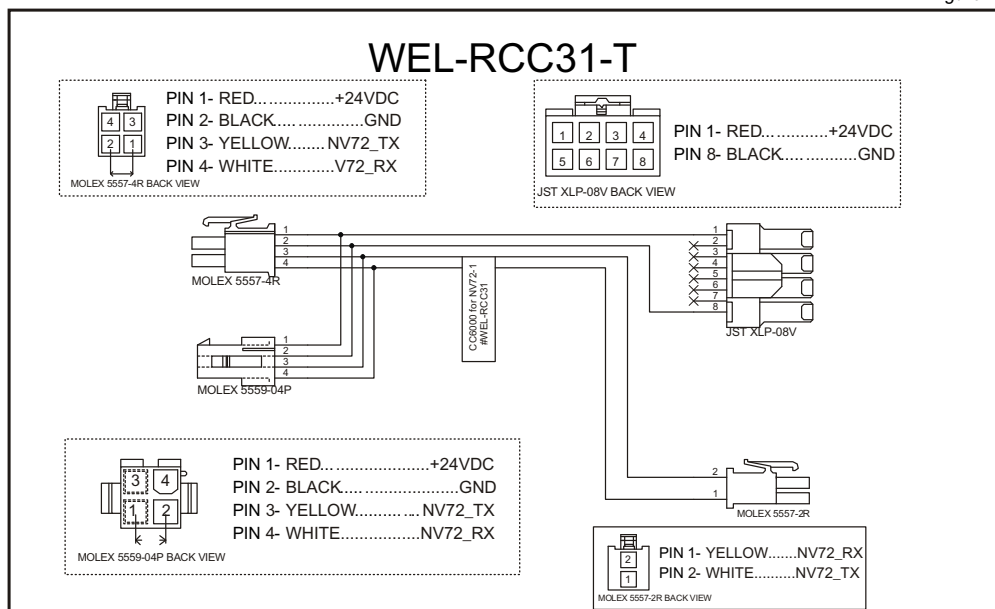


Figure.18

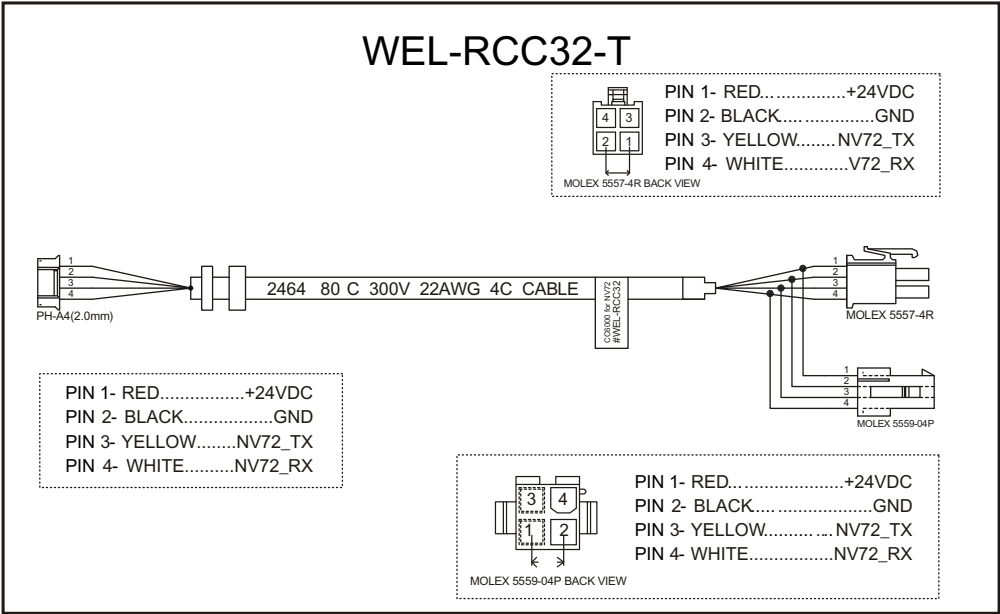
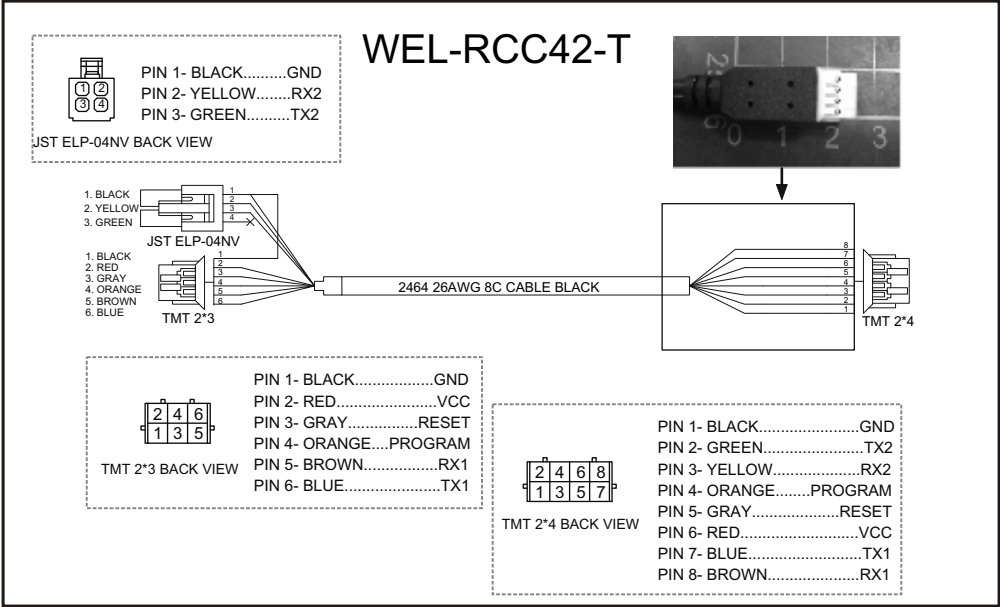


Figure.19



4-2. Connecting the ICT Bill Acceptor:

4-2-1. Wiring:

Figure.20

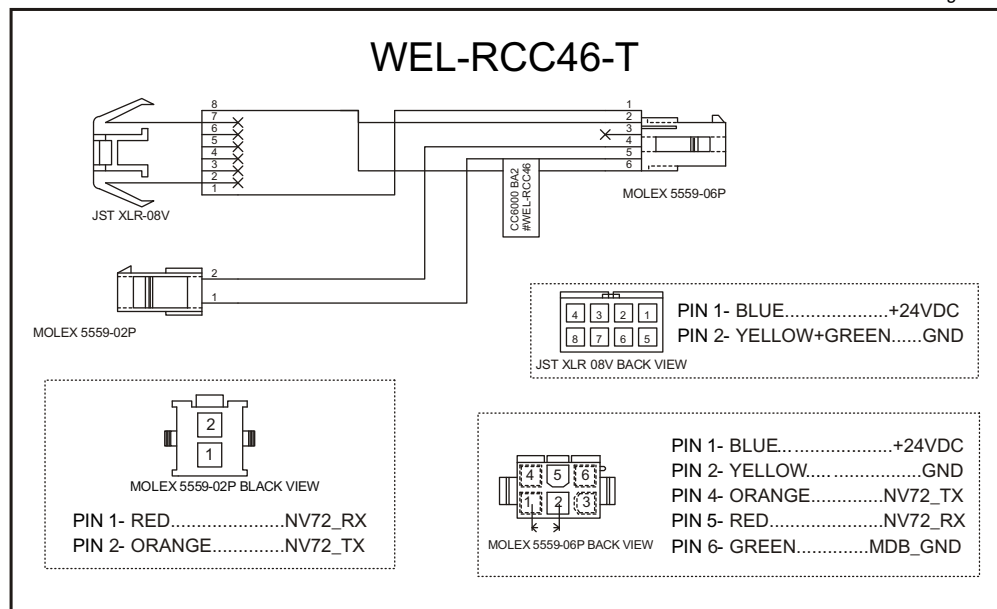


Figure.21

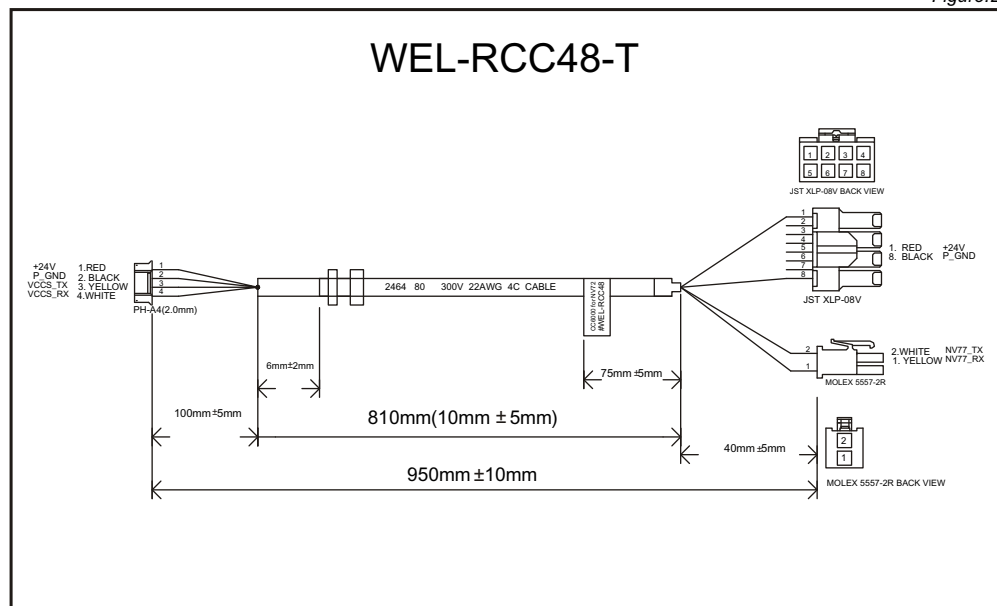
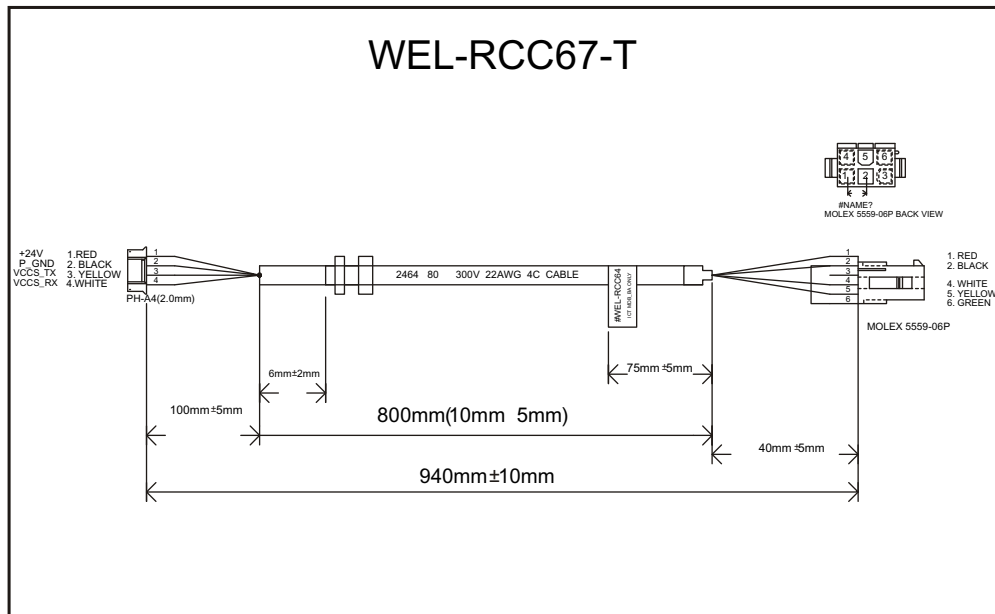


Figure.22



4-2-2. Cautionary Items:

The VCCS Interface Bill Acceptor: NV Series

Wires used: WEL-RCC48

The MDB Interface Bill Acceptor: V Series、TAO-V、V7E、S7A...

Wires used: WEL-RCC67

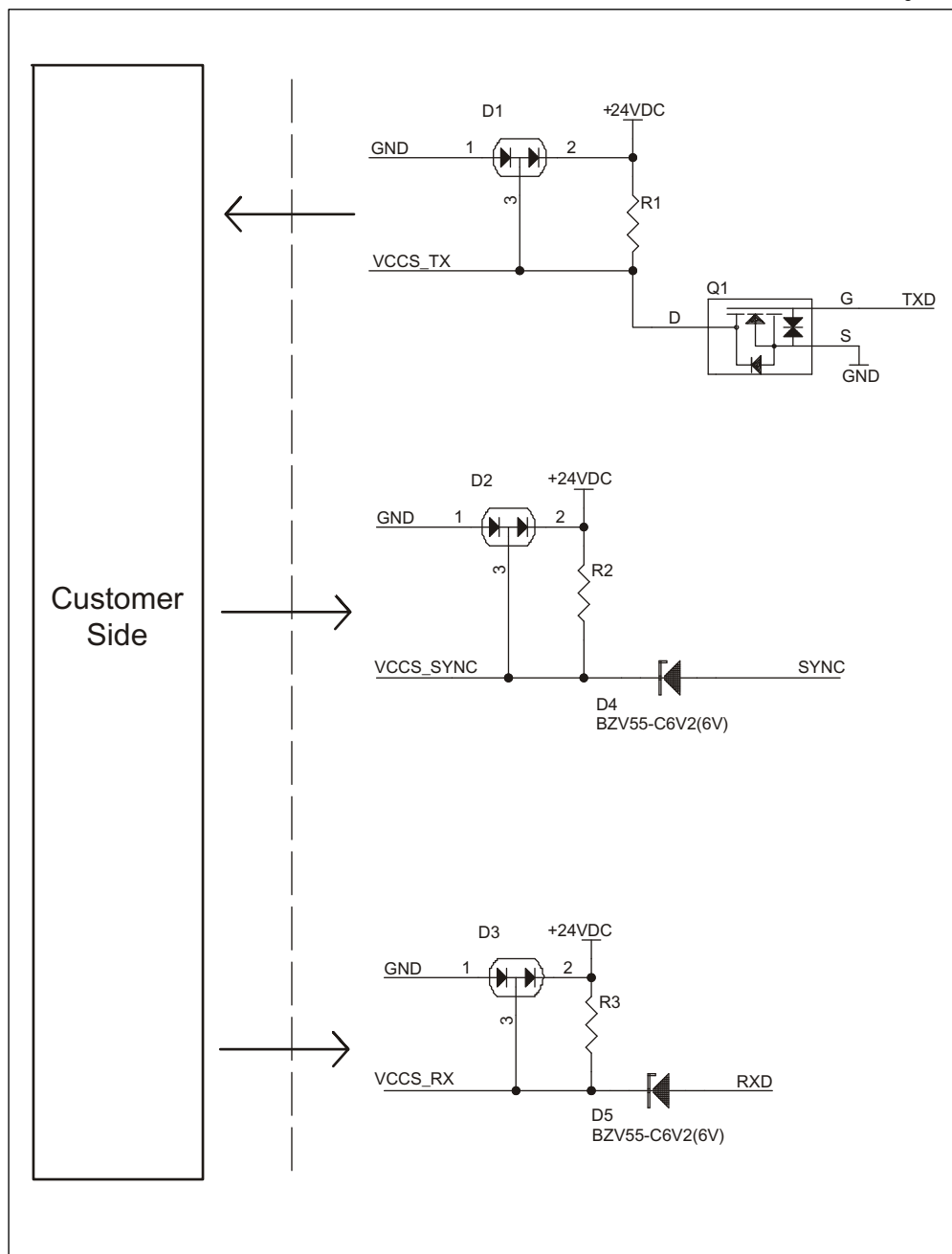
or WEL-RCC46 + WEL-RCC48

Please reference code 112 for the setting function

4-3. I/O :

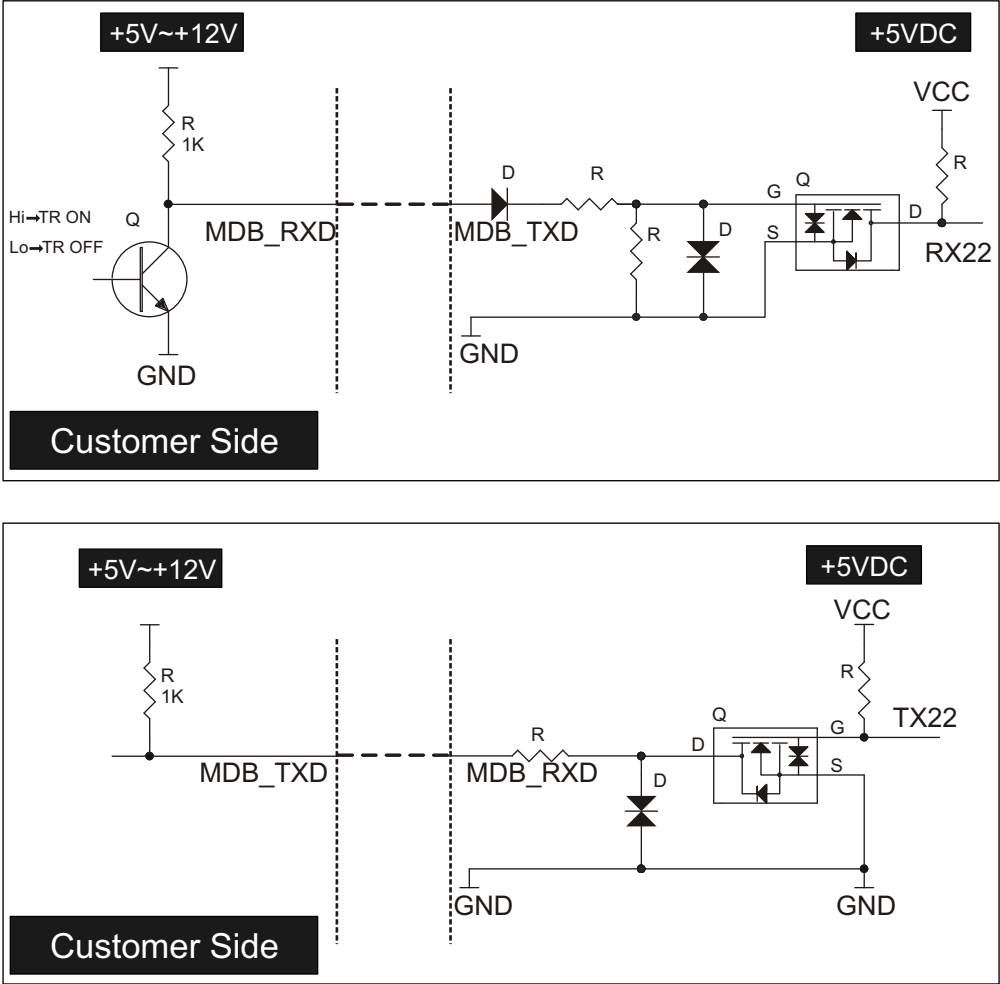
VCCS Interface.

Figure.23



MDB Interface.

Figure.24



5. Cleaning Diagram

- To ensure that the CC6000 Coin Changer can operate properly, please clean the following materials and parts periodically.

Clean the dust-proof sheet

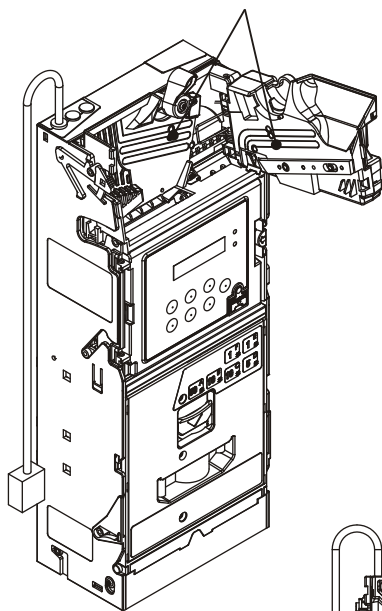


Figure.25

Clean the dust-proof sheet

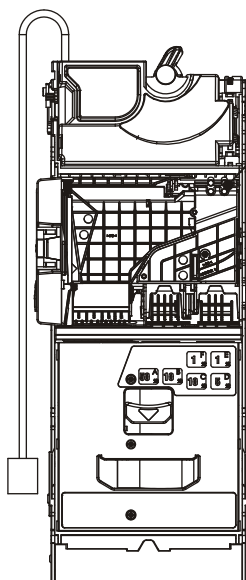
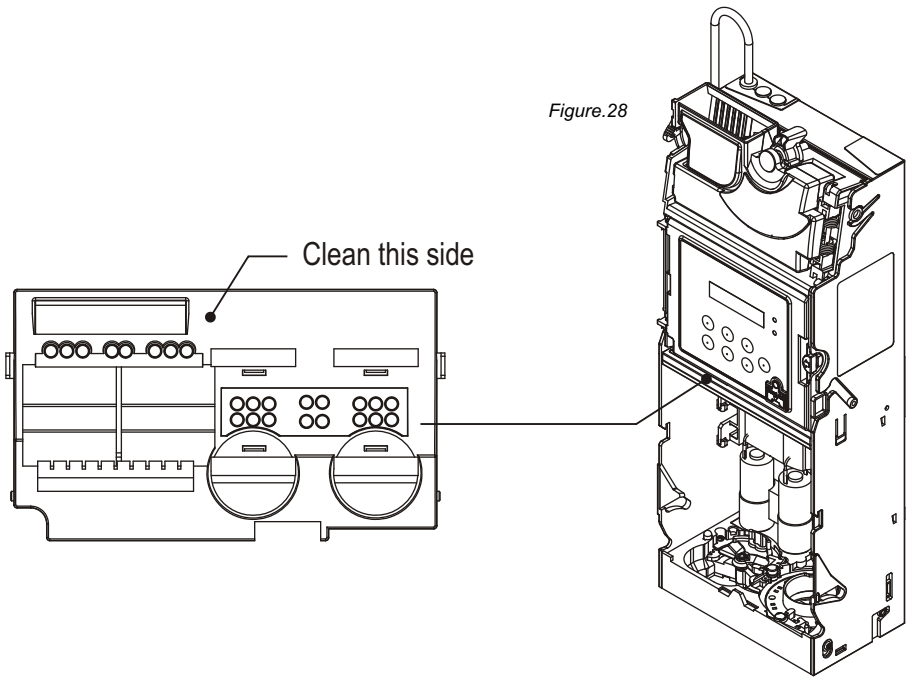
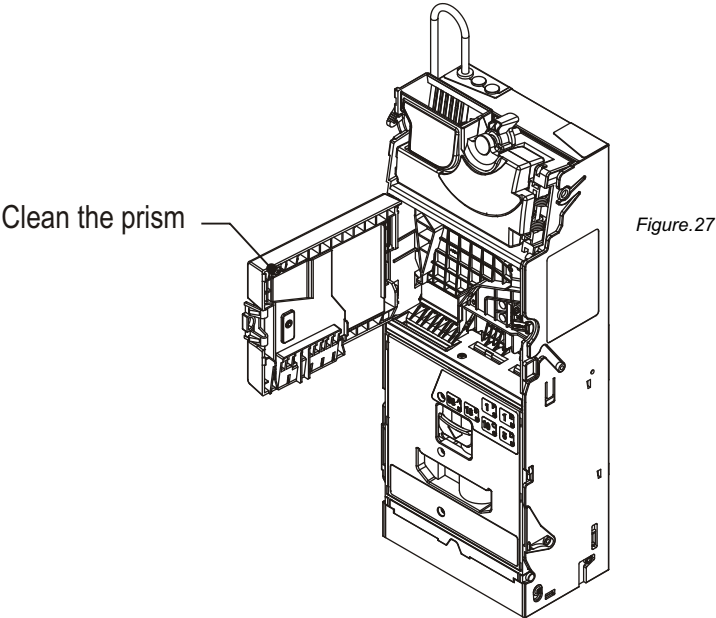


Figure.26



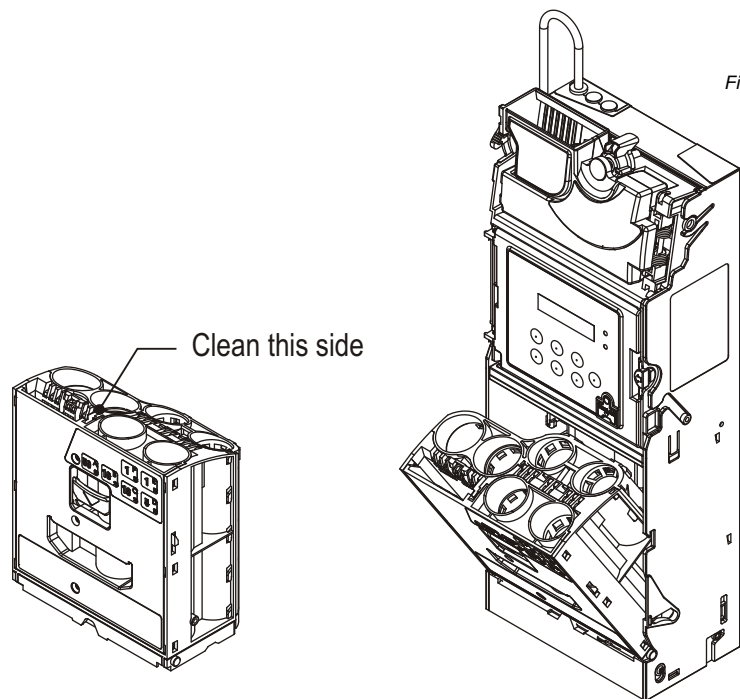


Figure.29

	Maintenance Notice <i>(Any improper maintenance will invalidate warranty.)</i>	
	Recommended	Mild, non-abrasive, soap water.
	DO NOT USE	Organic solvent , Alcohol, Volatility liquid.

6. Troubleshooting

6-1. Signal Messages

«LCM Panel Open»

Code: E10

LED Light Display: 5 red+ 2 red

LCM Display: As shown in figure

Sorting Module
Door Open E10

Cause: LCM Panel Open

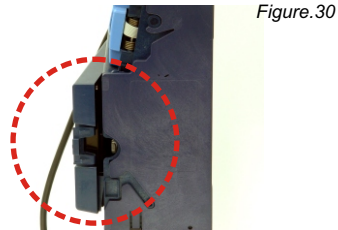


Figure.30

Corrective Measure: Close the LCM panel and verify that the latch is in place.



Figure.31

«Checksum Error»

Code: E11

LED Light Display: Red light

LCM Display: As shown in figure below

Check Sum Error
E11

Cause: Check Sum Error.

Corrective Measure: Notify the ICT personnel

«Payout Mode Error»

Code: E12

LED Light Indicator: Red light

LCM Display: As shown in figure below

Payout Mode Err E12

Cause: Signal from the coin base was not received when the power was turned on.

Corrective Method: Ensure that the signal wire is connected to the coin base

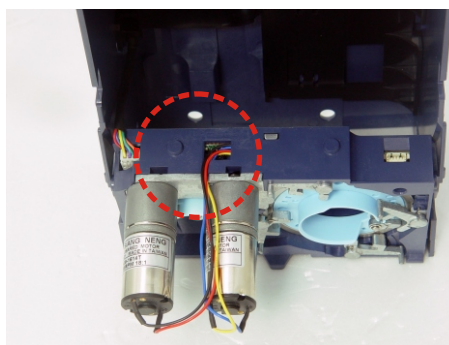


Figure.32

«CommunicationErr»

Code: E13

LED Light Display: 1 red

LCM Display: As shown in figure

No Communication with VMC E13

Cause: 1. Two seconds after activation, the SYSTEM did not wait for the READY signal from the DEVICE and jumped to the exception.

2. Two seconds after a transaction, the SYSTEM did not wait for the READY signal triggered by the DEVICE.

Corrective Measure: 1. Ensure that the machine interface and the VMC interface are consistent.

2. Ensure that the interface transmission wire is properly connected.



Figure.33

«#1 Coil ERR»

Code: E14

LED Light Display: 3 red+ 1 red

LCM Display: As shown in figure below

Coil Error #1 E14

Cause: Coil 1 is damaged.

Corrective Measure: Notify the ICT personnel

«#2 Coil ERR»

Code: E15

LED Light Display: 3 red + 2 red

LCM Display: As shown in figure below

Coil Error #2 E15

Cause: Coil 2 is damaged.

Corrective Measure: Notify the ICT personnel

«#3 Coil ERR»

Code: E16

LED Light Display: 3 red + 3 red

LCM Display: As shown in figure below

Coil Error #3 E16

Cause: Coil 3 is damaged.

Corrective Measure: Notify the ICT personnel

«LowLevel LED ERR»

Code: E17

LED Light Display: 3 red+ 5 red

LCM Display: As shown in figure below

Tube Detection
Sensor Error E17

Cause: Low level LED is damaged.

Corrective Measure: Automatically retry once a minute and stop after 10 retries if the problem is not resolved.

«SortSensor ERROR»

Code: E18

LED Light Display: 3 red + 4 red

LCM Display: As shown in figure below

Sorting Module
Sensor Error E18

Cause: Coin separator sensor problem.

Corrective Measure: 1. Make sure that the reflective prism is not dirty or blocked by foreign objects. If it is, remove the foreign object and clean the reflective prism.
2. Retry once a minute for 10 times, if the problem is not resolved, stop retrying.

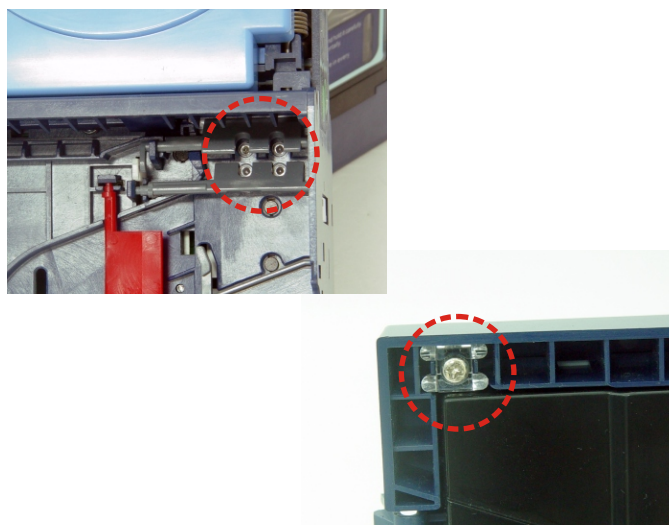


Figure.34

«Deckopen Problem»

Code: E19

LED Light Display: 5 red +1 red

LCM Display: As shown in figure below

Coin Validator
Door Error E19

Cause:

The deck is open for over 30 seconds.



Figure.35

Corrective Measure: 1. Close the deck and reactive the power.
2. Retry once a minute for 10 times, if the problem is not resolved then remove the LCM panel to leave this exception.



Figure.36

«MOTOR Problem : A&B»

Code: E20

LED Light Display: 7 red

LCM Display: As shown in figure below

All Motor Error
E20

Cause: Both the first and second group motors cannot be positioned.

Corrective Measure: Please reference instructions for “E19” and “E20” below.

«MOTOR Problem : A»

Code: E21

LED Light Display: None

LCM Display: As shown in figure below

Left Motor Error E21

Cause: The first motor group cannot be positioned. The first motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed.

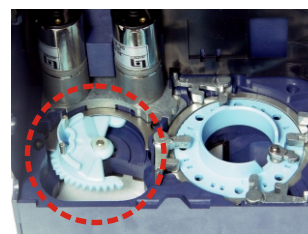


Figure.37

Corrective Measure: 1. Confirm whether a foreign object has caused the semicircle disk to get stuck. If there is, remove the object and turn on the power again. Use buttons “A” and “B” of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to normal operation.

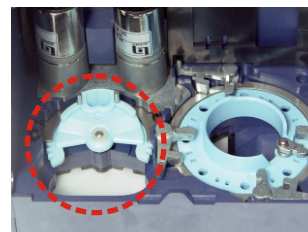


Figure.38

2. Verify whether the semicircle disk has derailed. If it has, then move the disk back onto the track and reactive the machine. Use buttons “A” and “B” of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to normal operation.

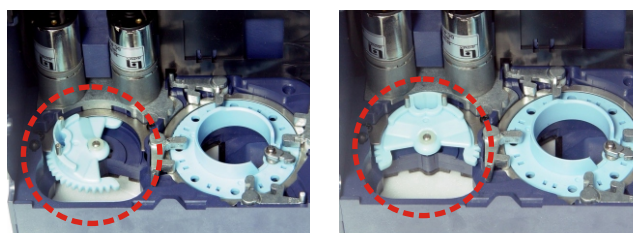


Figure.39

«MOTOR Problem : A»

3. Turn on the power again and use buttons “A” and “B” of the LCM to test and determine whether the semicircle disk can be returned to its normal position. If it does, then the machine has returned to normal operation. If nothing happens, then the first motor group has been damaged. Please notify the ICT personnel to handle the problem.
4. Verify whether the openings of the “A” and “B” tube has been stuck by a coin. If a tube has been stuck, remove the stuck coin, reassemble the coin tube, and turn on the power again. Use buttons “A” and “B” of the LCM to test whether tubes “A” and “B” can discharge coins correctly. If it does, then the machine has returned to normal operation.



Figure.40

«MOTOR Problem : B»

Code: E22
 LED Light Display: None
 LCM Display: As shown in figure

Right Motor Error	E22
----------------------	-----

Cause: The second motor group cannot be positioned. The second motor group might be damaged, coin or foreign objects might have caused the motor to stuck, coins are stuck in the coin tube, or the semicircle disk has derailed.

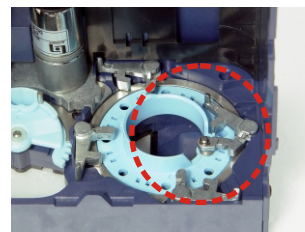


Figure.41

Corrective Measure: 1. Confirm whether a foreign object has caused an obstruction. If there is, remove the object and turn on the power again and determine if the coin rod can return back to its position. Use buttons “C,” “D,” “E,” and “F” of the LCM to test and determine whether the coin rod can hit the coin correctly. If it does, then the machine has returned to normal operation.

2. Turn on the power again to observe whether the disk has repositioned itself. If it does not, then the second motor group is damaged. Please notify the ICT personnel to handle the situation.
3. Confirm whether the coin rod is stuck. If it is then manually move the rod back to its position. Turn on the power again and use buttons “C,” “D,” “E,” and “F” of the LCM to test whether the coin rod can hit the coin correctly. If it does, then the machine has returned to normal operation.

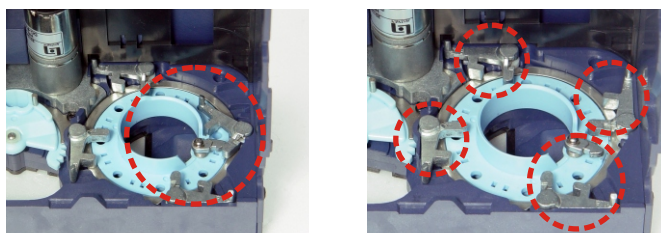


Figure.42

4. Confirm whether “C,” “D,” “E,” and “F” tube openings are stuck by a coins. If they are, remove and reinsert the coin and reassemble the coin tubes. Turn on the power again and use buttons “C,” “D,” “E,” and “F” of the LCM to test whether coins can be discharged correctly. If it does, then the machine has returned to normal operation.



Figure.43

«Cassette Out»

Code: E23

LED Light Display: 5 red

LCM Display: As shown in figure

Cassette Out E23

Cause: Broke away or incorrectly positioned coin tubes.



Figure.44

Corrective Measure: Ensure that the coin tubes are correctly positioned.

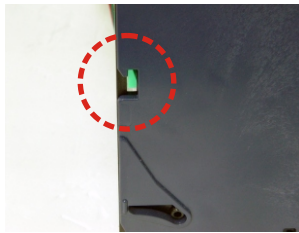


Figure.45

«Tube H/L Sen ERR»

Code: E24

LED Light Display: 6 red + 4 red

LCM Display: As shown in figure

Coin->Tube
Sensor Error E24

Cause: Coins got stuck at the coin separation area or the coin tube opening twice in a row, causing the HI Level Sensor to fail to detect the coin twice in a row.

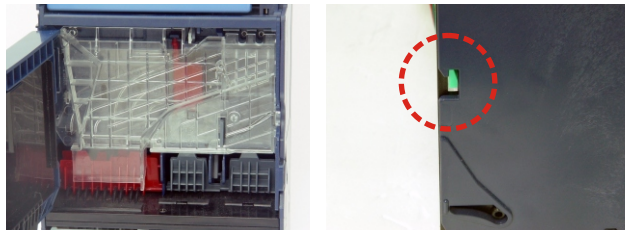


Figure.46

Corrective Measure: 1. Open the LCM panel to verify whether coins are stuck in the coin separation area. If there are then push aside the transparent latch for the coin guiding board, remove the coin guiding board, remove the stuck coins, and then reinstall the coin guiding board. Turn on the power again. Insert coins of various denominations to ensure that they enter the corresponding coin tube. If this is the case then the problem has been resolved.

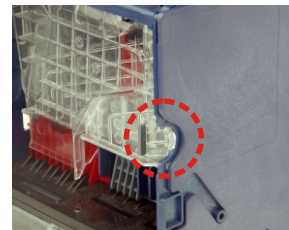


Figure.47

2. Ensure that the coin tubes have been positioned correctly. Turn on the power again. Insert coins of various denominations to ensure that they enter the corresponding coin tube. If this is the case then the problem has been resolved.

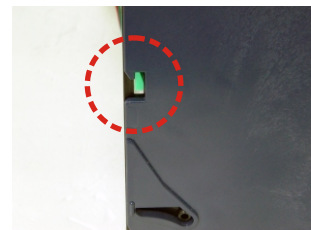


Figure.48

«Tube H/L Sen ERR : A»

Code: E25

LED Light Display: None

LCM Display: As shown in figure below

Tube A Sensor Error	E25
------------------------	-----

Cause: Low Level = empty, Hi Level = full at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sen ERR : B»

Code: E26

LED Light Display: None

LCM Display: As shown in figure below

Tube B Sensor Error	E26
------------------------	-----

Cause: "B" Tube Low Level = empty, Hi Level = full at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sen ERR : C»

Code: E27

LED Light Display: None

LCM Display: As shown in figure below

Tube C Sensor Error	E27
------------------------	-----

Cause: "C" Tube Low Level = empty, Hi Level = full at setup.

Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sen ERR : D»

Code: E28
LED Light Display: None
LCM Display: As shown in figure below

Tube D Sensor Error	E28
------------------------	-----

Cause: "D" Tube Low Level = empty, Hi Level = full at setup.
Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sen ERR : E»

Code: E29
LED Light Display: None
LCM Display: As shown in figure below

Tube E Sensor Error	E29
------------------------	-----

Cause: "E" Tube Low Level = empty, Hi Level = full at setup.
Corrective Measure: Retry once every 2 seconds during the standby mode.

«Tube H/L Sen ERR : F»

Code: E30
LED Light Display: None
LCM Display: As shown in figure below

Tube F Sensor Error	E30
------------------------	-----

Cause: "F" Tube Low Level = empty, Hi Level = full at setup.
Corrective Measure: Retry once every 2 seconds during the standby mode.

«Barcode Reader ERROR»

Code: E31

LED Light Display: None

LCM Display: As shown in figure below. The machine will continue to work.

BarCode Sensor Error E31

Cause: Barcode Reader error.

Corrective Measure: Ensure that the Barcode Reader is not dirty or blocked by foreign objects. If it is, then clean the Barcode Reader or remove the obstruction.



Figure.49

Caution: The machine would continue to work despite the Barcode Reader error.

«Coin Size LED ERROR»

Code: E32

LED Light Display: None

LCM Display: As shown in figure. The machine will continue to work.

Diameter Sensor Error E32

Cause: The three sets of LEDs used to distinguish Coin size have been damaged.

Corrective Measure: Open the deck. Ensure that the Sensor and LED are not dirty or blocked by foreign objects. If they are, then clean the Sensor and LED or remove the obstruction.

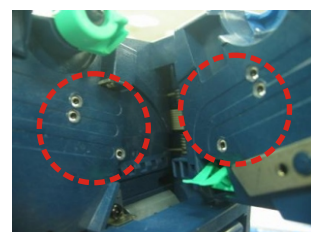


Figure.50

«InHibit By VMC»

Code: None

LED Light Display: 2 red

LCM Display: As shown in figure below

Inhibit By
VMC!!

Cause: The “InHibit” signal transmitted by the interface.

Corrective Measure: None.

7. Program Download

7-1. MCU STM8 Program Download and Burning User Manual:

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«This Document is only Applicable to the Corresponding Coin Changer Products»

This document provides detailed downloading and burning steps as follows:

7-1-1. Parts:

Please have the download burning box and related wire accessories ready

1. Tool-kit Box
FP-004 x 1pc
2. Cable-wires
#WEL-RF303 x 1pc
#WEL-RF406 x 1pc



Figure.51

7-1-2. Connect:

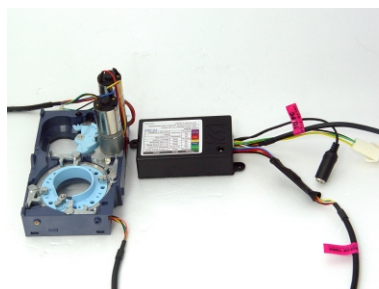


Figure.52

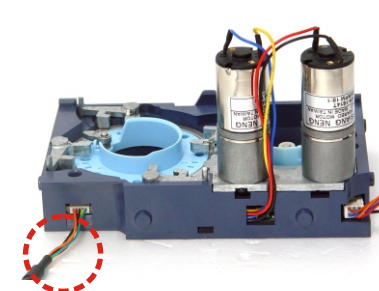


Figure.53

7-1-3. Initiate the download and burning process:

1. Please ensure that the RS232 program has been activated and is working properly

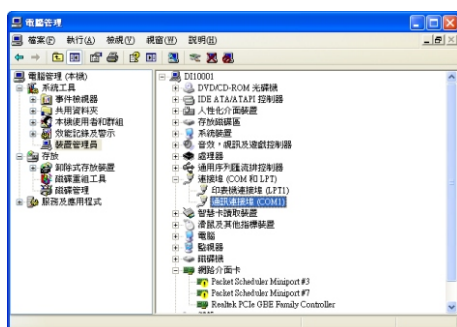


Figure.54

2. Click and execute FP4DT.exe

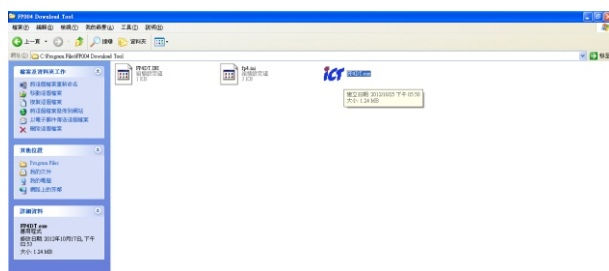


Figure.55

3. Select Coin Changer, STM8, typeFP004 tool-kit, RS232 COM port, and specify the file download and burning path (only accept files with .s19 extensions)

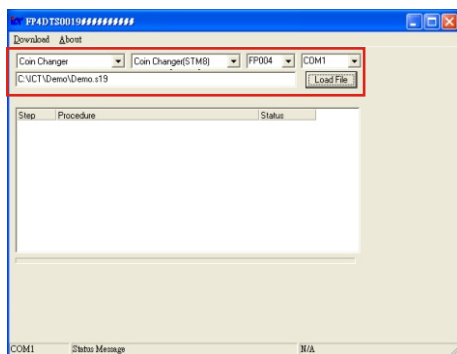


Figure.56

4. Click “Download”

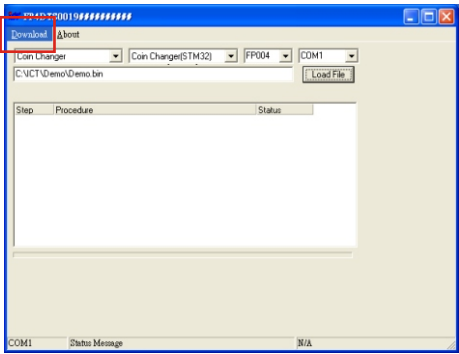


Figure.57

5. Download provides two burning options, direct download and burn to the Coin Changer, or download and burn to the FP-004 control box.

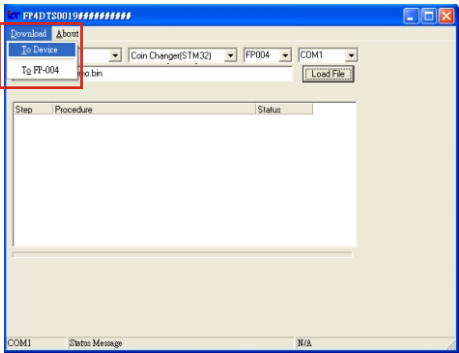


Figure.58

6. Select the download and burning option, and the process would execute automatically (The lower-left corner of the screen shows the communication status)

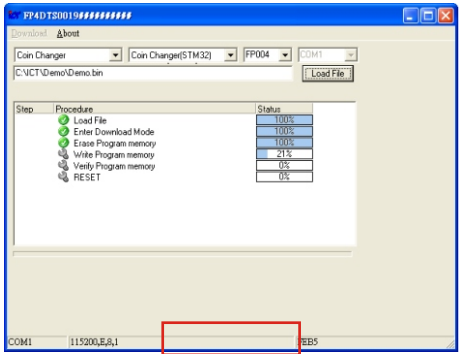


Figure.59

7. Download and Burning Completed

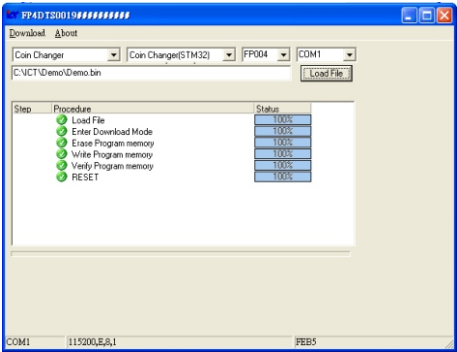


Figure.60

7-2. MCU STM32 Program Download and Burning Instruction:

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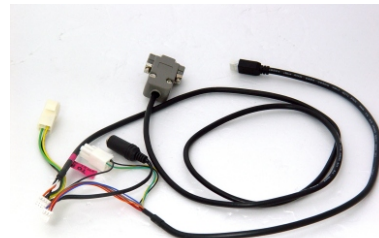
«This Document is only Applicable to the Corresponding Coin Changer Products»

This document provides detailed downloading and burning steps as follows:

7-2-1. Parts: Please have the download burning box and related wire accessories ready

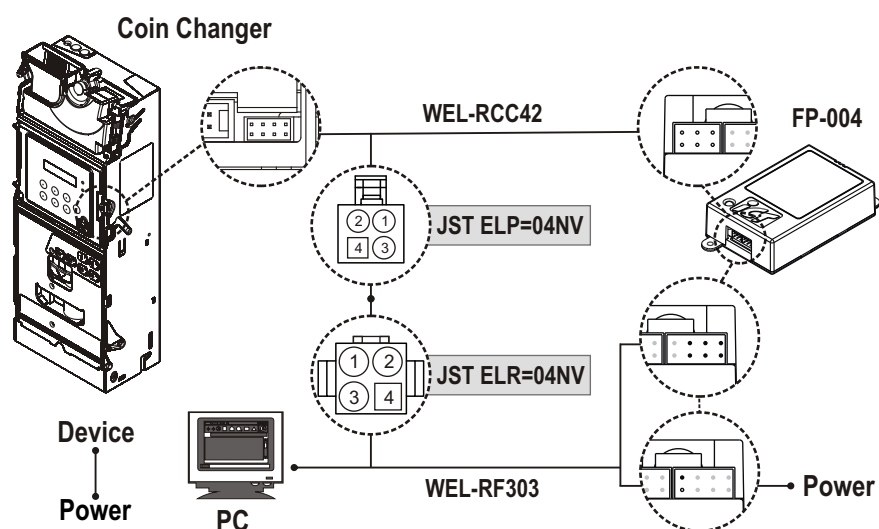
1. Tool-kit Box
FP-004 x 1pc
2. Cable-wires
#WEL-RF303 x 1pc
#WEL-RCC42 x 1pc

Figure.61



7-2-2. Connection

Figure.62



7-2-3. Initiate the download and burning process:

1. Please ensure that the RS232 program has been activated and is working properly

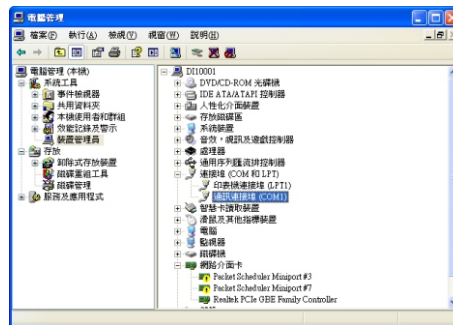


Figure.63

2. Click and execute FP4DT.exe

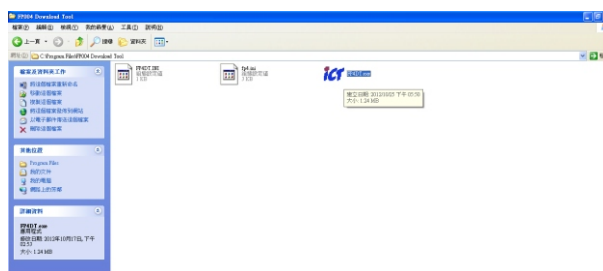


Figure.64

3. Select Coin Changer, STM8, typeFP004 tool-kit, RS232 COM port, and specify the path for file download and burning (only accept files with .s19 extensions).

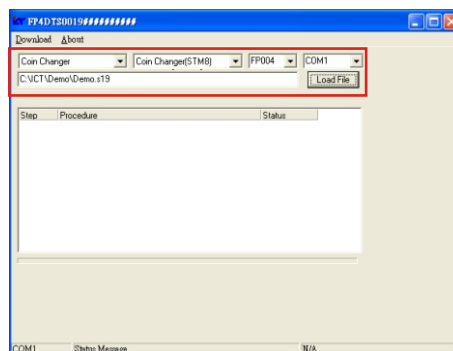


Figure.65

4. Select "Download"

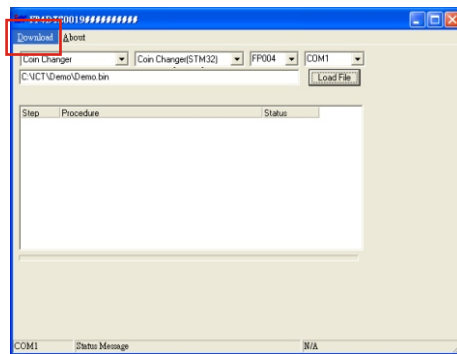


Figure.66

5. Download provides two burning options, direct download and burn to the Coin Changer, or download and burn to the FP-004 control box.

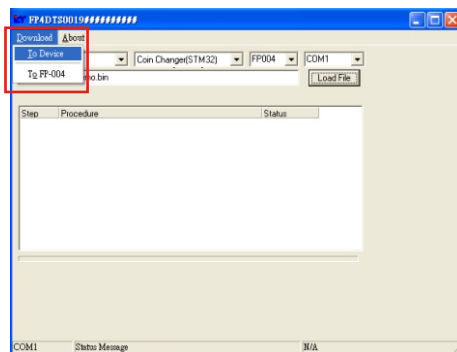


Figure.67

6. Select the download and burning option, and the process would execute automatically (The lower-left corner of the screen shows the communication status)

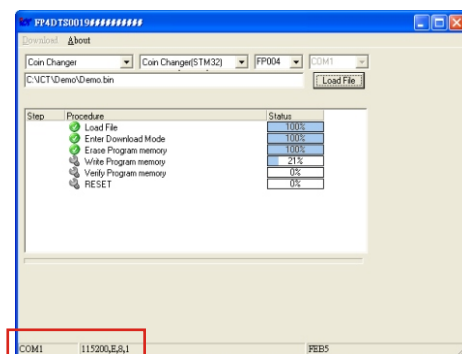


Figure.68

7. Download and Burning Completed

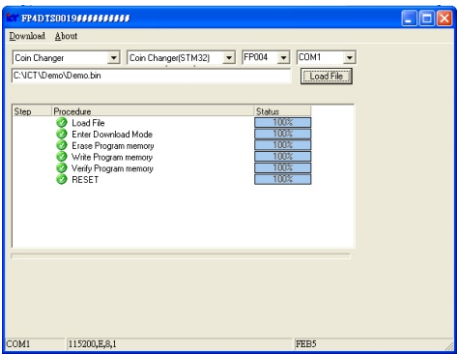


Figure.69

8. Steps for Disassembling

8-1. Upper Module Disassembling:

1. Press down the shell stabilization leaver until the fixed axis is fully exposed.



Figure.70

2. Pull and rotate the upper half of the module forward.

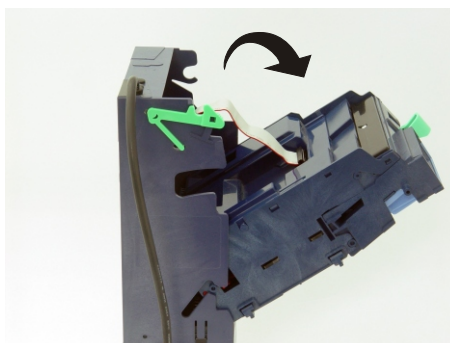


Figure.71

3. After the upper half of the module is pulled out, unplug the soft gray cable, and then lift upward at a 35 degree angle until the end.

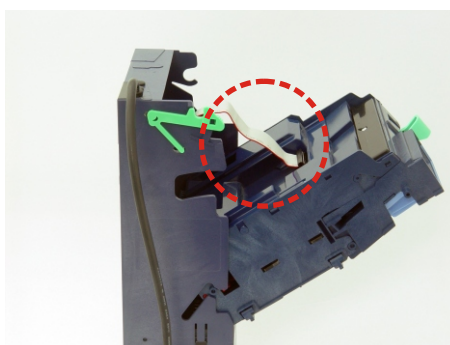


Figure.72

4. Pull the upper half of the module out of the shell.

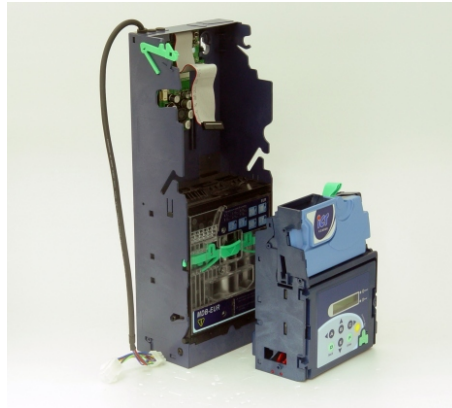


Figure.73

8-2. Module Identification and Disassembling:

1. Turn the upper half of the module towards the back and ensure that the two fix points of the modules are flipped to the two sides.

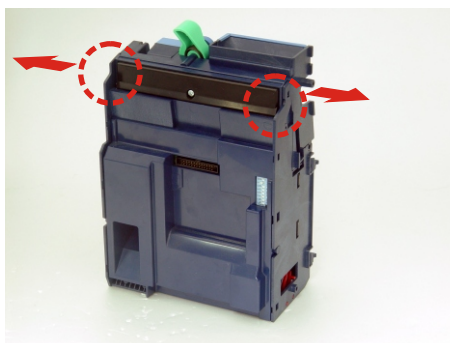


Figure.74

2. Pull out the identification module.



Figure.75

3. Unplug the wire connecting to the identification module.

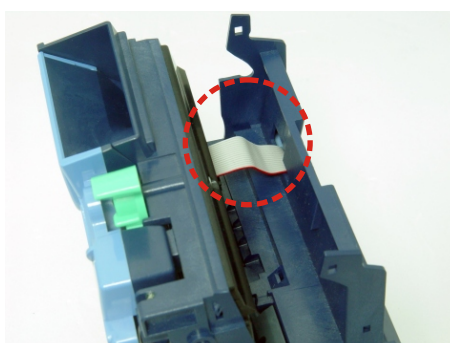


Figure.76

4. Pull and remove the identification module.



Figure.77

8-3. Disassembling of the Coin Discharge Module:

1. Remove the two screws on the sides of the coin discharge module.

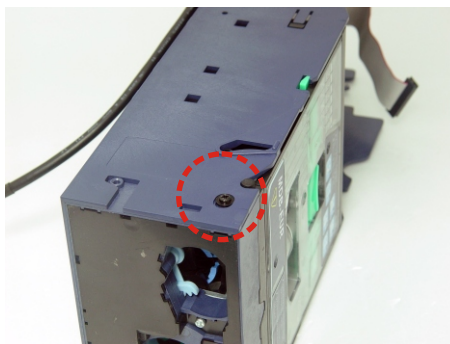


Figure.78

2. Rotate the coin discharge module downward 90 degrees.

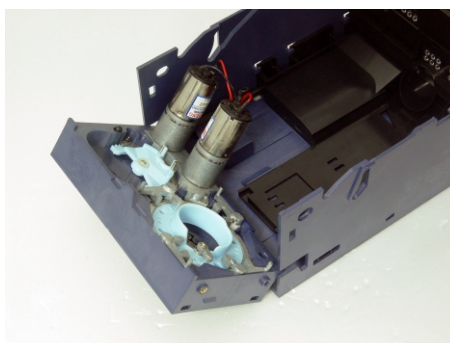


Figure.79

3. Unplug the wire connecting to the coin discharge module.

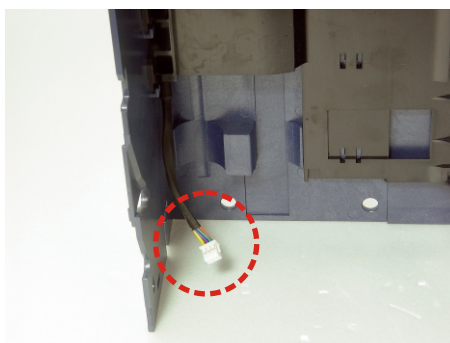


Figure.80

4. Pull and remove the coin discharge module.

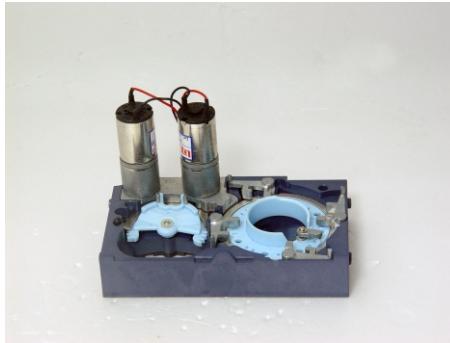
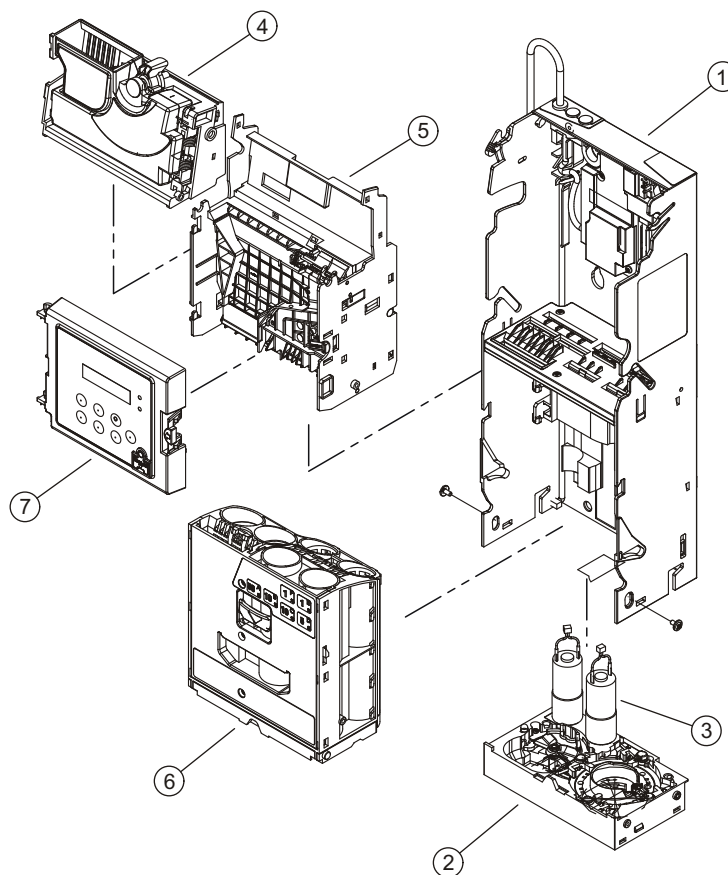


Figure.81

9. Module Exploded Diagram

Figure.82



Note	Order	Part Number	Appellation	Quantity
	1	3RCC-CAS01001	Coin Change Main Machine Module	1
	2	3RCC-POK03004	Coin Changer-Coin Discharge Module	1
	3	3RCC-MOT02001	Changer Coin Discharge Motor Module	1
	4	3RCC-IDE01000	Identification Module (2.5mm)	1
	5	3RCC-SOR01003	Coin Separation Module (ESCROW-A)	1
	6	3RCC-TUB06003	Coin Tube Module (NTD Version-2)	1
	7	3RCC-FAC01002	Display Panel Module	1



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